

Claims:

1. A hybridoma cell line which produces an anti-inositolphosphoglycan (IPG) monoclonal antibody, wherein the cell line is selected from hybridoma cell lines 2F7,
5 2D1 and 5H6 deposited at European Collection of Cell Cultures (ECACC) under accession numbers 98051201, 98031212 and 98030901.
2. An anti-IPG monoclonal antibody as obtainable from a
10 hybridoma cell lines of claim 1.
3. An anti-IPG monoclonal antibody which is capable of binding to an epitope of an IPG which is bound by a monoclonal antibody of claim 2.
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4. The anti-IPG antibody of claim 3 wherein the antibody is capable of binding an epitope present in A-type IPG as obtainable from rat liver and P-type IPG as obtainable from human placenta.
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5. The anti-IPG monoclonal antibody of any one of claims 2 to 4, wherein the antibody additionally does not substantially bind to the common reactive determinant (CRD) of GPI anchored proteins.
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6. The anti-IPG antibody of any one of claims 2 to 5, wherein the antibody neutralises an IPG biological activity.
7. An anti-IPG monoclonal antibody of any one of the
30 preceding claims for use in a method of medical

treatment.

8. A composition comprising an anti-IPG monoclonal antibody of any one of claims 2 to 6.

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9. A method of producing an anti-IPG antibody comprising culturing a hybridoma cell line of claim 1 and isolating the antibody thus produced.

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10. Use of an anti-IPG antibody of any one of claims 1 to 6 for the preparation of a composition for use in a diagnostic assay.

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11. The use of claim 10 wherein the diagnostic assay is for the diagnosis of diabetes or pre-eclampsia.

12. The use of claim 11 wherein the diagnostic assay is for determining the risk of a patient developing type I diabetes.

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13. The use of any one of claims 10 to 12 wherein the anti-IPG antibody is used as a binding agent capable of specifically binding to IPGs.

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14. The use of any one of claim 10 to 13 wherein the anti-IPG antibody is labelled for use as a developing agent in the diagnostic assay.

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15. Use of an anti-IPG antibody of any one of claims 1 to 6 for the preparation of a medicament for the treatment of pre-eclampsia.

16. A method for diagnosing whether a patient is at risk of developing type I diabetes, the method comprising:

5 (a) contacting a biological sample from the patient with an antibody capable of specifically binding P and/or A-type IPGs; and,

(b) determining the binding of IPGs in the sample to the anti-IPG antibody.

10 17. The method of claim 16 wherein the method comprises an initial step of providing the patient with a carbohydrate load and measuring the IPG response following the load over time to obtain an IPG profile.

15 18. The method of claim 16 or claim 17 wherein the IPG profile determined from a patient sample is compared with profiles or levels obtained from normal subjects and patients having type I diabetes.

20 19. The method of any one of claims 16 to 18 which comprises the further step of administering insulin and/or P-type IPGs and/or A-type IPGs to a patient shown in the assay to have or be at risk of developing type I diabetes.

25 20. A method for diagnosing pre-eclampsia in a patient, the method comprising:

(a) contacting a biological sample from the patient with an anti-IPG antibody of any one of claims 2 to 6; and,

30 (b) determining the binding of IPGs in the sample to the anti-IPG antibody.

21. The method of claim 20 which comprises the further step of administering a P-type IPG antagonist to a patient shown in the assay to have or be at risk of developing pre-eclampsia.

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22. The method of any one of claims 16 to 21, wherein the anti-IPG antibody is immobilised on a solid support.

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23. Use of a monoclonal antibody of any one of claims 2 to 6 in the immunopurification of P or A-type IPGs.

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24. A method of producing anti-IPG antibodies, the method comprising immunising an animal with one or more soluble IPGs or a lipid conjugate thereof to elicit an antibody response, wherein the IPGs are not conjugated to an immunogenic carrier.

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25. The method of claim 24 wherein the animal is immunised via an intraperitoneal route using a soluble form of the IPG.

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